# NV Energy's Statement of Interest (SOI) Submitted in Response to Western Area Power Administration's Request for Interest (RFI) Dated March 4, 2009

#### **General Overview:**

Nevada Power Company ("NPC") and Sierra Pacific Power Company ("SPPC"), both d/b/a/ NV Energy (hereinafter both referred to as NV Energy), are submitting this Statement of Interest (SOI) in response to the Western Area Power Administration's (Western) Request for Interest (RFI) dated March 4, 2009.

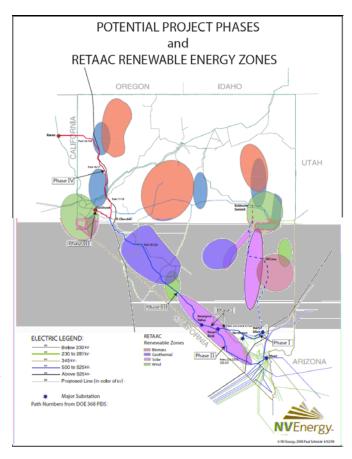
This SOI is intended to provide the information requested in the RFI (seeking interest from any entity or entities interested in identifying a proposed transmission project, primarily in Western's service area, and/or desiring to participate with Western and possibly others by financing, constructing or owning facilities or acquiring transmission rights or entering into long-term transmission service agreements on that project).

NV Energy submits this SOI for the potential joint development and construction of 500 kV transmission lines and associated facilities to access renewable energy resources in resource rich, but transmission deficient, geographic zones and deliver such renewable resources to loads in Nevada and potentially to California, Arizona or other markets in the Desert Southwest. The proposed facilities would extend north from the Las Vegas area along the western part of the State of Nevada, providing access to significant amounts of renewables along the way, to NV Energy's existing Blackhawk Substation in the northern part of NV Energy's system and, if desired by Western, could ultimately interconnect with a proposed Raven Substation in Northern California. The facilities also could form a loop around the Las Vegas load center to improve transfer capability and provide access to pre-identified renewable zones to California and Arizona markets. The proposal is for a phased approach to development to more closely match the demand for renewables with actual resource development. Please refer to Figure 1 for identification of the project phases described herein.

Phase I would consist of a 500 kV line extending from NV Energy's existing Harry Allen 500 kV substation to its Northwest Substation and from there northward to a new collector substation in the Amargosa Valley to access abundant solar resources in the area.

Phases II and III, though labeled sequentially in the included maps, could be interchangeable or concurrent depending on demand and Western's and NV Energy's wants and needs. Phase II could extend south from a proposed Desert Rock Station to Western's Mead substation in the Eldorado Valley (or to other available delivery points in the area). Phase III would extend north from the Amargosa Valley to NV Energy's Blackhawk Substation for a strong connection to NV Energy's northern system.

Finally, Phase IV could be an option for extending into the Transmission Agency of Northern California's (TANC)/Western TANC



NPC is a public utility that generates, transmits and distributes electric energy in southern Nevada. At year-end 2008, NPC served approximately 827,000 customers in Las Vegas, North Las Vegas, Henderson, Searchlight, Laughlin and adjoining areas, including Nellis Air Force Base and the Department of Energy's Nevada Test Site in Nye County.

SPPC is a public utility that generates, transmits and distributes electric energy to approximately 366,000 customers. The service territory covers over 50,000 square miles of western, central and Northeastern Nevada, including the cities of Reno, Sparks, Carson City, Elko, and a portion of eastern California, including the Lake Tahoe area.

# <u>Transmission Facility Owners in the Vicinity of the Proposed Projects and relationship to NV Energy:</u>

Western, NV Energy, Southern California Edison (SCE), Los Angeles Department of Water and Power (LADWP), Salt River Project (SRP), Arizona Public Service (APS), TANC, Bonneville Power Administration (BPA) & Valley Electric Association (VEA) are transmission owners in the vicinity of this proposed project. NV Energy has existing interconnections with all of these parties except TANC. NV Energy is a joint owner of the Eldorado 500 kV Transmission System with SCE, SRP and LADWP in the area south of Las Vegas. NV Energy also is a joint owner of the Navaho 500 kV Transmission System with LADWP and SRP.

# NV Energy's relationship with Renewable Resource developments that may appear in Section 4 below:

Though this proposal is not specifically tied to any particular renewable resource at this time, NV Energy has executed a memorandum of understanding with one developer in one of the renewable zones accessed by the proposed facilities. NV Energy and Solar Millennium, LLC, together with its joint venture partner MAN Ferrostaal Inc., have entered into a memorandum of understanding for potential development of one or more solar power facilities in southern Nevada. The initial project under consideration is a 250-megawatt (MW) solar trough technology plant at a site located in Nye County that includes thermal storage. Plans call for the project to be completed in 2013-14, depending on permitting, financing and other government approvals.

#### 2. Contact Information:

Name: Brian Whalen

Title: Director, Transmission System Planning

Mailing Address: P.O. Box 10100

M/S S3B40

Reno, NV 89520-0024

Physical Address: 6100 Neil Road

Reno, NV 89511

Office Number: (775) 834-5875 Fax Number: (775) 834-3047

Email Address: <u>bwhalen@nvenergy.com</u>

Or

Name: Chris Tomchuk

Title: Director, Transmission Policy and Contracts

Mailing Address: P.O. Box 10100

M/S S3B40

Reno, NV 89520-0024

Physical Address: 6100 Neil Road

Reno, NV 89511

Office Number: (775) 834-5876 Fax Number: (775) 834-3047

Email Address: ctomchuk@nvenergy.com

#### 3. Project Description:

#### Overview:

As shown in Figure 2 below, the Company is proposing a multifaceted project developable in stages with various ownership and transfer capabilities from the Amargosa Valley, Pahrump Valley, Eldorado Valley, West Central Nevada and Northwest Nevada to the load service areas/markets in the Desert Southwest and California.

The project could be built in phases dependent on several factors: 1) renewable portfolio standards needs of the local utilities, 2) the results of an "Open Season" process offered by Western and/or NV Energy, and 3) generation interconnection requests and transmission service requests made to NV Energy and/or Western.

The envisioned build out of these facilities would allow a transmission path from the Desert Southwest and Southern California to renewable resource rich zones that have been identified through stakeholder processes in Nevada and through the Western Governor's Association's efforts. Depending on Western's desires and needs, these facilities could ultimately tie Western's Mead substation to Western's Sierra Nevada Region and provide access to these resource rich zones and exchanges to/from other markets. The various phases are discussed below and in greater detail in Appendix A.

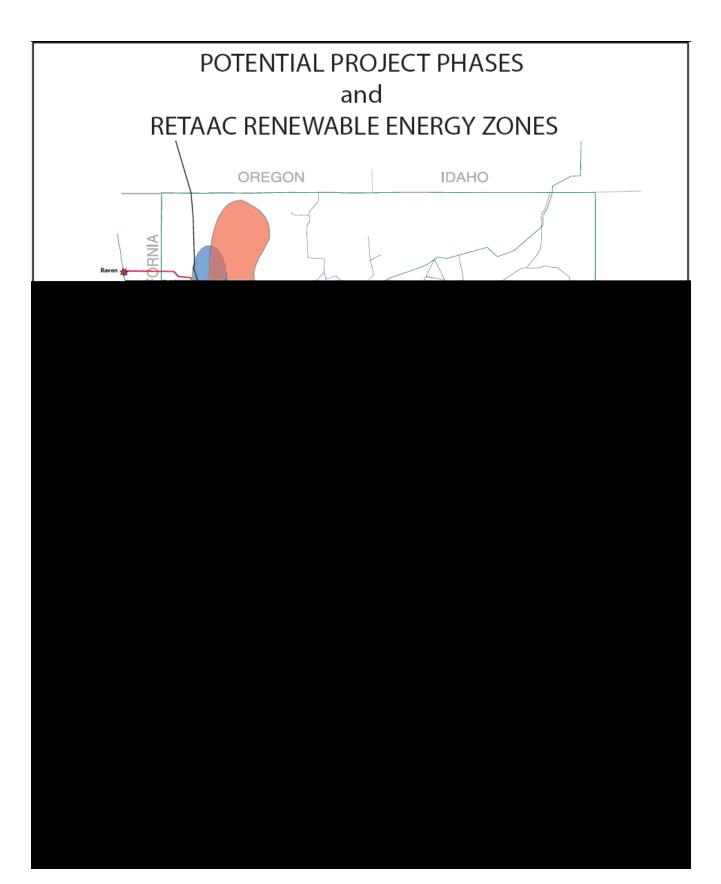


FIGURE 2

#### **Project Details:**

#### Phase I

- Northwest Substation to Amargosa Valley Substation 500 kV Line
- Amargosa Valley Substation 500/230 kV Collector Station
- Harry Allen Substation to Northwest Substation 500 kV Line

#### **Overview:**

The Company determined through its internal transmission planning processes that 500 kV facilities were needed to support renewable resource development in Amargosa Valley in the very near term. Since these facilities are within NV Energy's Balancing Area no additional regional study work was required.

Facilities to be developed in Phase I are:

Permit and construct approximately seventy five (75) miles of 500 kV transmission line from the existing Northwest Substation into the Amargosa Valley past a future location for the proposed Desert Rock Station. In the Amargosa Valley construct a 500/230 kV collector station in the heart of the premium solar location in the Desert Southwest. The ultimate configuration of this substation will depend on size and location of interconnecting resources.

Permit and construct approximately thirty (30) miles of 500 kV line between the existing Harry Allen and Northwest Substations and construct associated terminal additions in Harry Allen and Northwest Substations. These facilities are located in northwest and north central Las Vegas, Nevada.

Permit and construct a 230 kV line from Northwest Substation to a new 230 kV South Canyon Substation for retail load service to the Las Vegas Valley and Valley Electric Association.

The estimated cost of this phase is \$235 million (not including South Canyon 230 kV substation costs) construction can be started in 2011, subject to permitting, with completion 24 months later, and the initial capacity will be approximately 800 MW.

#### Phase II

- Desert Rock 500 kV Station
- Desert Rock Station to Mead Substation 500 kV Line

#### Overview:

Permit and construct Desert Rock Station located in the approximate area of the intersection of State Route 95 and State Route 160, and approximately one hundred and ten (110) miles of 500 kV transmission line from Desert Rock Station to Western's Mead Substation through the Pahrump Valley.

The ultimate configuration of Desert Rock Station will depend on size and location of interconnecting resources and other considerations but is envisioned to consist of three (3) 500 kV line terminals (Desert Rock to Mead, Desert Rock to Northwest and Desert Rock to Amargosa Valley).

The estimated cost of this phase is \$214 million and construction would be dependent on Western's needs and permitting requirements. The ultimate capacity after the facilities are constructed is estimated to be 2,000 MW.

#### Phase III

- Amargosa Valley Substation to Blackhawk Substation 500 kV Line
- Amargosa Valley Substation 500 kV Terminal
- Blackhawk Substation 500 kV Terminal
- Blackhawk Substation 500/345 kV Station

#### **Overview:**

Permit and construct approximately two hundred sixty five (265) mile - 500 kV line between Amargosa Valley Substation and Blackhawk Substation, a 500 kV line terminal in Amargosa Valley Substation, a 500 kV line terminal in Blackhawk Substation, and construct a 500/345 kV station at Blackhawk Substation.

The estimated cost of this phase is \$441 million. Construction is not expected to begin before 2013 and would depend on need, permitting, and results of an open season. The ultimate capacity after the facilities are constructed is estimated to be 2,000 MW.

#### Phase IV

- Blackhawk Substation to Raven Substation 500 kV Line,
- Blackhawk Substation 500 kV Terminal,
- Raven Substation 500 kV Terminal, and
- Raven 500/345 kV Station.

#### Overview:

This line could interconnect the northern part of Nevada into Western/TANC's TTP Project in Northern California. If constructed by Western, it would create a tie between Western's southern system at Mead and Western's northern system in the Raven area.

Permit and construct approximately two hundred and five (205) mile - 500 kV line between Blackhawk Substation and Raven Substation, 500 kV line terminals at Blackhawk and Raven Substations, and a 500/345 kV station at Raven Substation.

The estimated cost of this phase is \$357 million. The construction would depend on Western's needs. The ultimate capacity after the facilities are constructed is estimated to be 2,000 MW.

#### 4. Renewable Resource Description:

NV Energy has been involved in Nevada's Renewable Energy Transmission Access Advisory Committee (RETAAC) since its formation by the Governor of Nevada in May 2007. The Committee consisted of representatives from a cross section of stakeholders and issued its Phase I report in December 2007 identifying a number of high potential renewable energy zones in the State and transmission facilities that may be needed for their development. RETAAC currently is working on Phase II of its study, where it is refining the zones, identifying environmental and other constraints and applying economic and other feasibility criteria to the zones and lines. Final recommendations are expected from the Committee in July 2009.

NV Energy has received approval from the Public Utilities Commission of Nevada to conduct initial routing studies for several of the lines identified in the RETAAC work. Please refer to the green dashed lines in the Renewable Zones map (Figure 4) below (though shown as 345 kV, some of the lines can be developed at 500 kV based on need). Those initial studies are expected to be completed this year. This map depicts the renewable energy zones identified in the RETAAC work and shows various Bureau of Land Management (BLM) renewable applications as of the time it was developed (note: these change frequently). Nevertheless, the map is illustrative of the renewable potential and level of interest that has been expressed for sites along the proposed project route(s). For example, approximately 4,500 MW of 500 MW+ class solar thermal applications have been made to the BLM in Amargosa, Pahrump and Eldorado Valleys. Additional information on RETAAC may be found at <a href="http://www.retaac.org/">http://www.retaac.org/</a>

NV Energy also is developing a 500 kV line along the eastern part of the State, the One Nevada Transmission Line or ON Line project (shown as the red dashed line in Figure 4 below), which will deliver renewables and allow for other significant benefits to NV Energy's northern and southern systems. However, because of its location, ON Line will not provide transmission access along the western Nevada state border. The facilities identified in this SOI would provide that access.

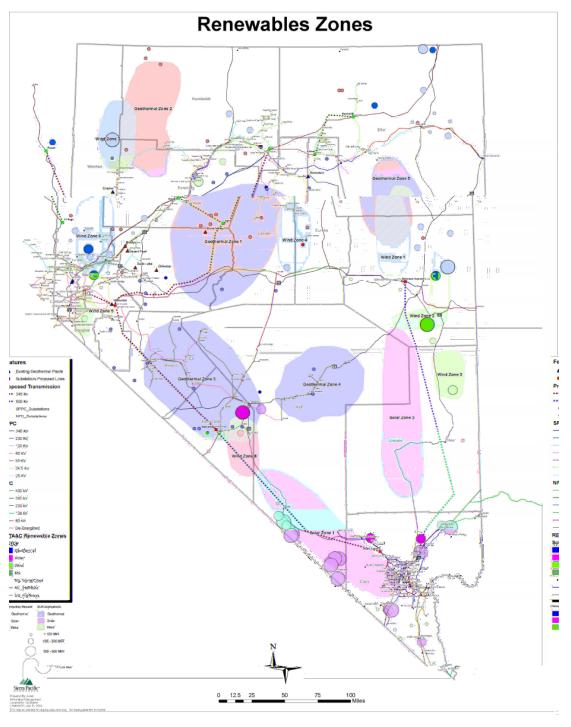


FIGURE 4

Independent from the RETAAC work, the Western Governors' Association ("WGA") also has identified the south west corner of Nevada as the premier developable solar location in the Western US. The following map (Figure 5) which is an excerpt from the WGA's Western Renewable Energy Zones Group work highlights these zones.

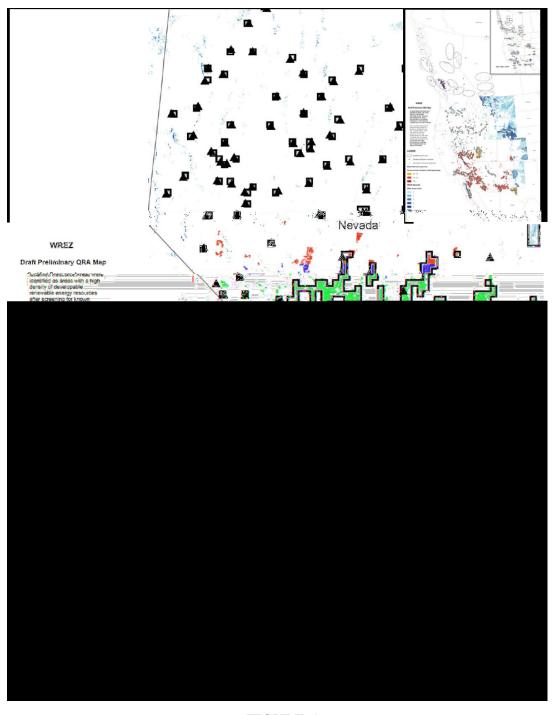


FIGURE 5

#### **5. Interconnection Requests:**

NV Energy currently has over sixty (60) renewable projects, requesting to connect approximately 8,300 MW of capacity, in its generation interconnection queue. The types of renewable resources requesting interconnection are shown below. The generation interconnection study work for these projects is in different stages.

- a. Solar (Thermal and Photovoltaic) Approximately 4,100 MW mainly Southern Nevada
- b. Wind Approximately 3,750 MW 30% in Southern Nevada balance in Northern Nevada
- c. Geothermal Approximately 450 MW all in Northern Nevada.

In Section 1, NV Energy discussed the development agreement that was reached between NV Energy and Solar Millennium, LLC, project. The initial project under consideration is a 250 MW solar trough technology plant at a site located in Nye County, but is not included in the numbers above.

#### 6. Transmission Rights and/or Transmission Service:

All of the projects in the generation interconnection queue will require transmission service of some type to move their resource from the generation site to the load. This service could be through designation as a network resource or a request for long term firm point to point transmission service.

#### 7. Participant Roles:

NV Energy wants to examine the potential for a joint project with Western to leverage NV Energy and Western's investments for a higher benefit than would be achieved individually. NV Energy proposes that Western invest as an owner in this project and assist in permitting and siting of the facilities. Specific capacity rights percentages for the various phases are discussed in more detail in Appendix A.

#### 8. Public Interest:

In concert with the directive given to Western by the Federal Government and NV Energy's commitment to be a renewable energy leader, this project provides opportunities for the two entities (and others) to integrate renewable resources into the transmission grid. The proposal also provides a long term solution to further renewable energy penetration into the energy market. In addition, the proposal enables renewable

rich zones the opportunity to access the market and load areas in the Nevada, California and Desert Southwest while reinforcing the reliability of the overall bulk transmission system.

#### 9. Prior Experience:

As described in Section 1 above, NV Energy has been in the utility business since the early part of the century and has added significantly to its transmission, distribution and generation assets. NV Energy has significant experience with permitting, development and construction of major transmission lines. NV Energy has completed six (6) major transmission projects in the last twelve (12) years. These include: 100 miles of 500 kV; 350 miles of 345 kV; and 140 circuit miles of 230 kV. NV Energy is currently developing its ON Line project, a 235 mile long 500 kV line along eastern Nevada that will, among other things, allow for the transfer of Northern Nevada renewables to Southern Nevada.

NV Energy's most recent project involving Western was energized in 2007. It included approximately one hundred (100) miles of 500 kV lines that connected the Harry Allen 500 kV substation to Western's Mead 500 kV Substation as well as the Harry Allen 500 kV substation to the Northwest 500 kV Substation.

#### 10. Financial capability:

As documented in the NV Energy latest Form 10-K Report (2008), NV Energy serves one of the fastest growing electric service territories in the United States and has successfully done so for many years. The Company financed \$1 billion in plant additions in 2006, \$1.2 billion in 2007 and \$1.5 billion in 2008.

On May 15, 2008, the rating agency Standard & Poor's raised the secured debt ratings for NPC and SPPC to BBB with a stable outlook. Moody's Investors Service affirmed equivalent debt ratings with a stable outlook in its December 2008 report. Fitch Ratings provided BBB- ratings with a positive outlook in December 2008.

NPC maintains a revolving credit facility of \$600 million, and SPPC maintains a revolving credit facility of \$350 million.

Other relevant information can be reviewed in the NV Energy 2008 Annual Report located at

https://materials.proxyvote.com/Approved/67073Y/20090306/AR%5F36231/HTML2/default.htm or the NV Energy 2008 Form 10 k located at https://materials.proxyvote.com/Approved/67073Y/20090306/10K%5F36233/HTML2/de

<u>fault.htm</u>.

#### 11. Participation of Other Entities:

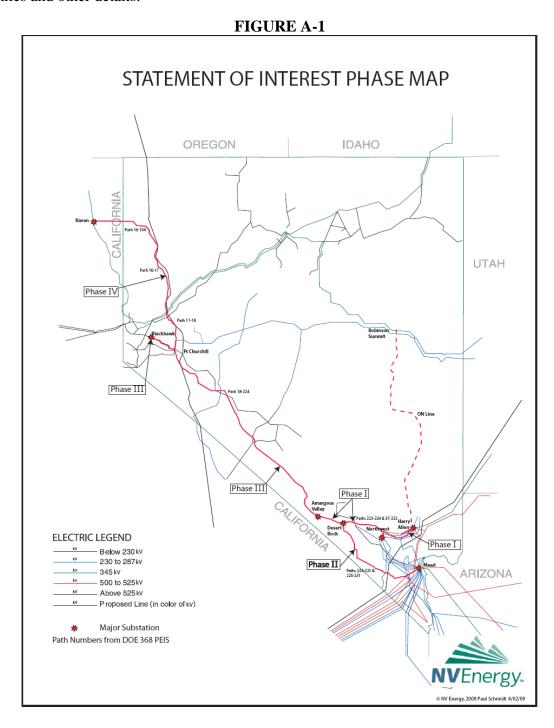
As highlighted in Section 4 above, NV Energy has been working for an extended period of time through Nevada's RETAAC with other interested entities to identify renewable energy zones and the associated transmission needed to get the resources located in these zones to load centers. Part of the discussions at RETAAC relate to the funding/building of these lines, as the participants recognize that the needs of Nevada alone may not be sufficient to fund all of the lines necessary to access the potentially available renewable resources. This SOI is designed to address some of those concerns by providing an opportunity for renewable developers to access additional markets beyond NV Energy and for other load serving entities to have access to several renewable energy zones.

#### 12. Other Information:

Please contact us if you need additional information or have questions on this proposal.

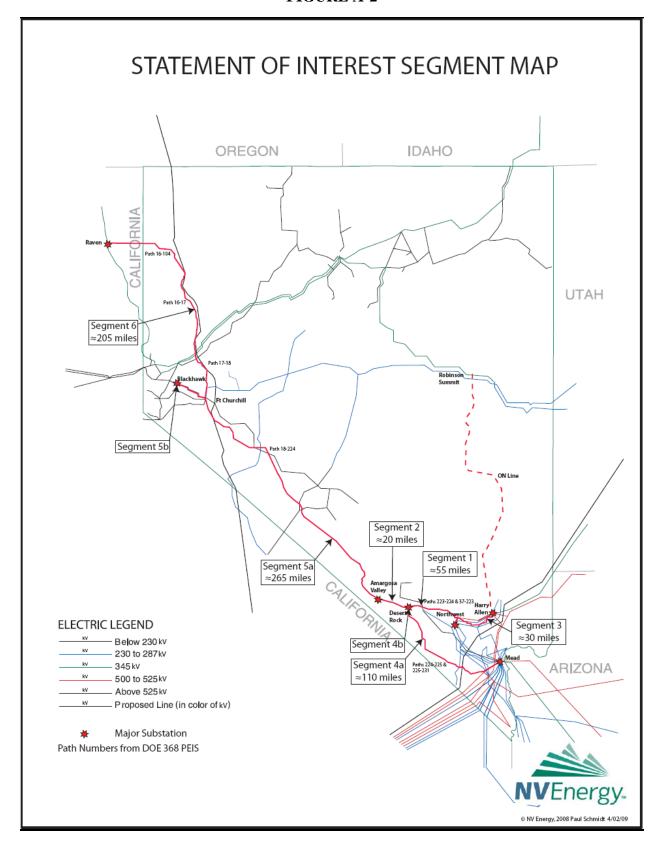
## **Appendix A – Additional Project Details**

Appendix A provides additional detail for NV Energy's Statement of Interest in different formats. Figure A-1 shows the potential Project by Phases (it is similar to the prior figures except for the deletion of the renewable zones). Figure A-2 shows the Project by Segments (Segments are not intended to relate to timing, but are used merely to tie to the cost matrix herein). Figure A-3 is a spreadsheet of the Project by Segment and Phase with the costs, line miles and other details.



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**FIGURE A-2** 



### FIGURE A-3

			Capacity (MW)		Western's			NV Energy's					
Segment	<u>Title</u>	<u>Phase</u>		Capacity Rights (%)	Investment (%)	Investment (\$mm)	Capacity Rights (%)	Investment (%)	Investment (\$mm)	# of or Miles	Cost Per (\$mm)	Item Cost (\$mm)	Total Cost (\$mm)
1	Northwest Substation to the location of Desert Rock Station - 500 kV	I		0	0	\$0.0	100	100	\$85.0				\$85.0
	500 kV Line 500 kV Terminal @ Northwest									55 1	\$1.4 \$8.0	\$77.0 \$8.0	
2	Location of Desert Rock Station to Amargosa Valley Substation - 500 kV	1		0	50	\$44.0	100	50	\$44.0				\$88.0
	500 kV Line (1) (2) Amargosa Valley Substation - Collector Station - 500/230 kV Transformer (3)									20	\$1.4 \$50.0	\$28.0 \$50.0	
	500 kV Terminal @ Amargosa Valley					•			•	1	\$10.0	\$10.0	
3	Harry Allen Substation to Northwest Substation - 500 kV	1		0	0	\$0.0	100	100	\$62.0				\$62.0
	500 kV Line 500 kV Terminals @ Harry Allen & Northwest									30 2	\$1.4 \$10.0	\$42.0 \$20.0	
	Phase I Totals		800			\$44.0			\$191.0				\$235.0
4	Desert Rock Station to Mead Substation - 500 kV	II											\$164.0
4a	500 kV Line			100	100	\$164.0	0	0	\$0.0	110	\$1.4	\$154.0	\$104.0
	500 kV Terminal @ Mead									1	\$10.0	\$10.0	\$50.0
4b	Desert Rock Station - 3 Terminals Mead, NW & AM			50	50	\$25.0	50	50	\$25.0	1	\$50.0	\$50.0	
	Phase II Totals		2,000			\$189.0			\$25.0				\$214.0
5	Amargosa Valley Substation to Blackhawk Substation - 500 kV	III											\$381.0
5a	500 kV Line - Amargosa Valley to Blackhawk 500 kV Terminal @ Amargosa Valley			50	50	\$190.5	50	50	\$190.5	265 1	\$1.4 \$10.0	\$371.0 \$10.0	
5b	Blackhawk Substation - 500/345 kV Substation 500 kV Terminal @ Blackhawk			50	50	\$30.0	50	50	\$30.0	1	\$50.0 \$10.0	\$50.0 \$10.0	\$60.0
	Phase III Totals (Staged Capacity)		2,000			\$220.5			\$220.5				\$441.0
6	Blackhawk Substation to Raven Substation - 500 kV	IV		100	100	\$357.0	0	0	\$0.0				\$357.0
	500 kV Line									205	\$1.4	\$287.0	
	Raven Station - 500/345 kV Sub (3) 500 kV Terminals @ Raven and Blackhawk									1 2	\$50.0 \$10.0	\$50.0 \$20.0	
	Phase IV Totals		2,000			\$357.0			\$0.0				\$357.0
	Project Totals					\$810.5			\$436.5	-			\$1,247.0
	ompletion of the Desert Rock to Mead 500 kV line, 50% of the 2,000 MW capacity from Amargosa Valley Standard permitted for two separate 500 kV lines on this line route.	ubstation to De	sert Rock Station	would be transfer	red to Western.								